

## Manufacturers of SMC / DMC

- SHEET MOULDING COMPOUND
- DOUGH MOULDING COMPOUND



## Moulding of SMC / DMC

- BUSBAR SUPPORT SYSTEM

We are a sister concern of Lotus Fibre and Lotus Fibre is in the field of FRP for the last 30 years.

Under this new Setup we have two divisions:

➤ **Manufacturing of SMC & DMC**

*The Compound manufactured by us is of the highest quality with varying Glass content and our speciality is ANTI STATIC PROPERTIES in most of the COLOURS.*

***The Main Features are:***

- *Resistance to high as well as sub-zero temperature*
- *Almost no moisture absorption.*
- *Arc resistance (Among Highest in plastic)*
- *High strength Stiffness comparable to metals*
- *Fire resistance.*
- *Weathering properties for outdoor.*
- *Excellent surface finish.*
- *Free from warp & sink mark.*
- *Chemicals, Acids, Alkalis, Solvents, Oil & Grease resistance*
- **Moulding of Industrial Electrical Products: DMC & SMC Bus bar Support System (Finger Type and Grip Type Bus bar Support**

### **TECHNICAL FEATURES OF COMPOUND**

SMC is a Moulding compound made on the basis of Glass Fibre Reinforced Unsaturated Polyester Resin

*SMC = Sheet Moulding Compound*  
*DMC = Dough Moulding Compound*

SMC is a Thermoset i.e. crosslinking materials where the cross linking is irreversible and it is the base for the unique technical performance. The thermoset composites provide more strength, dimensional stability and corrosion resistance.

The compound Material known as SMC / DMC / BMC are produced using thermosetting polymeric matrices the most common is Unsaturated Polyester Resin which is the chemical backbone of SMC/DMC imparting the required properties. SMC / DMC are reinforced with glass fibre also contains mineral fillers. The material does not melt neither does it form droplets nor smoke excessively

The material is compression moulded in heated steel Moulds.

Sheet Moulding Compound and DMC offer the following benefits over traditional metals

#### **Thermal resistance**

All thermoset polymers are known for their excellent thermal resistance. From technical view these materials are superior to engineering thermoplastics and especially the more economical alternative solution in comparison to high performance thermoplastics. The combination of cross linked polymer and high inorganic filler content by maintaining the excellent moulding characteristics make SMC materials the first choice for applications where elevated service temperatures are required.

#### **Fire retardancy**

High fire retardancy is nowadays most important for many applications. To achieve high flame retardancy a number of additives are used for different polymers. SMC do not contain any halogens or other hazardous flame retardants. Still they can be formulated having excellent properties even at very low wall thicknesses.

#### **Precision**

SMC are first choice solutions for substitution of high performance metal parts where high precision is achieved through post machining.

#### **Weight reduction**

In times where fossil fuels are running out at the same time as the environmental stress must be reduced, high performance composites can contribute with components with less weight and lower energy consumption. The mechanical properties of SMC make the substitution of a wide range of metal parts not only feasible but also quite easy.

#### **Electrical performance**

Excellent electrical performances have from the beginning of the plastics era been one of the biggest advantages of thermoset materials. Additionally to the excellent electrical properties of thermosets SMC show even higher performances especially in the parameters of electrical strength, water absorption and surface resistivity. SMC covers the full range of electrical requirements, isolating and conductive.

### **Class A surfaces**

This quality is equivalent to “mirror-like” finish excellent surfaces for online- and offline painting as well as metalizing are a domain of especially SMC parts. The surface results from the unique technology to compensate the material shrinkage.

### **Low emissions:**

It is a low emission material. Any hazardous or uncomfortable emissions and smell are restricted.

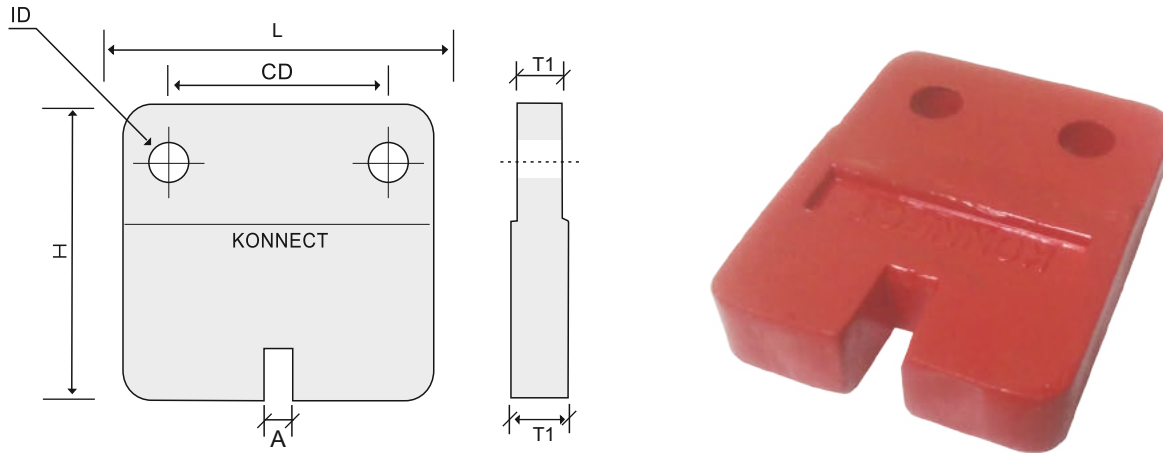
### **Properties**

Typical structural FEA properties for SMC

<b>Properties</b>	<b>Unit</b>	<b>SMC - 20 - 40% Glass Content</b>
Coefficient of Thermal Expansion	C	17.78
Flexural Modulus	GPa	10.34 - 13.10
Specific Gravity	g/cm <sup>3</sup>	1.6 - 2.0
Poisson's Ratio	-	0.32 - 0.36
Shear Strength	Mpa	55.17 - 82.76
Tensile Modulus	Gpa	9.66 - 12.41
Young's Modulus	GPa	11.03 - 13.79

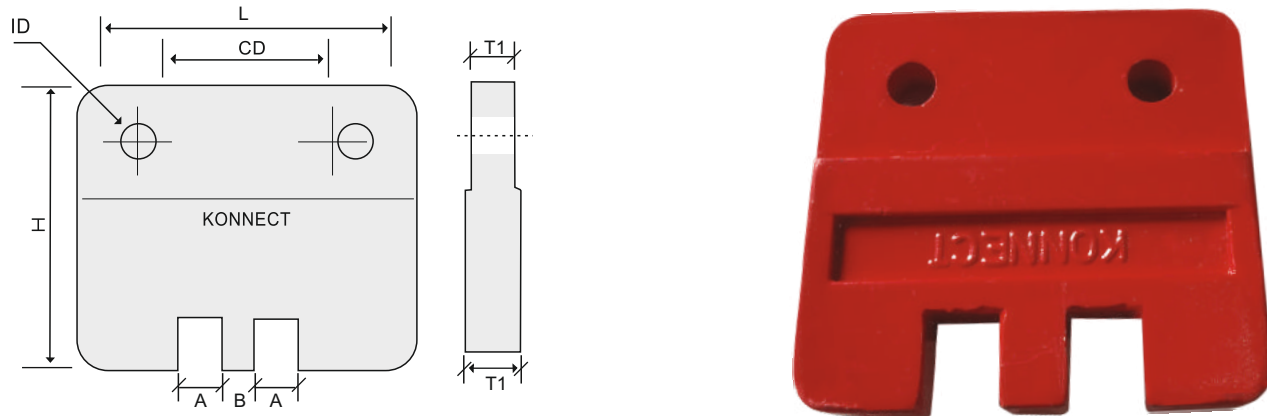


### One Way Finger Type



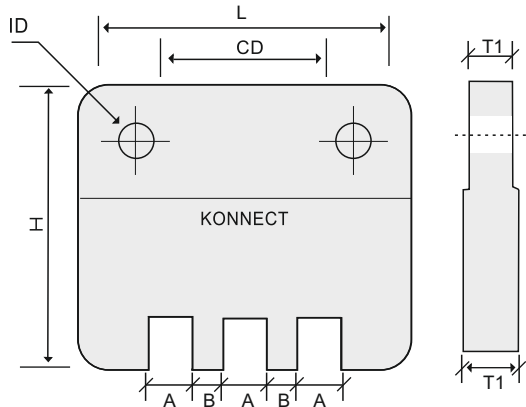
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LI 110	1	10	11	51.5	65	26.5	9.5	10.5	13.5
LI 112	1	12	13	51.5	65	26.5	9.5	10.5	13.5

### Two way Finger Type



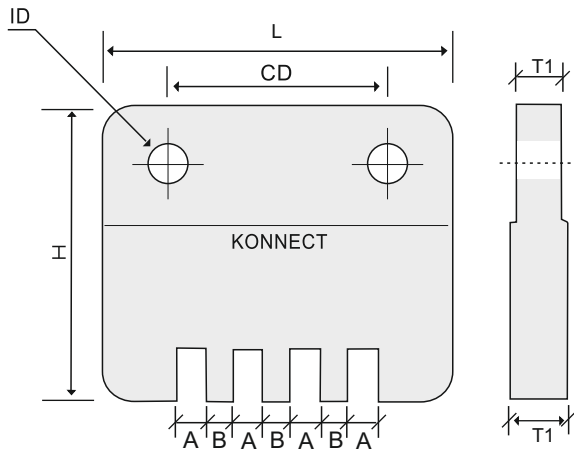
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LI 206	2	6	7.4	7.8	70	66	40	8.5	10	14
LI 210	2	10	12	9.6	70	66	40	8.5	10	14
LI 212	2	12	13	12.5	70	66	40	8.5	10	14

### Three Way Finger Type

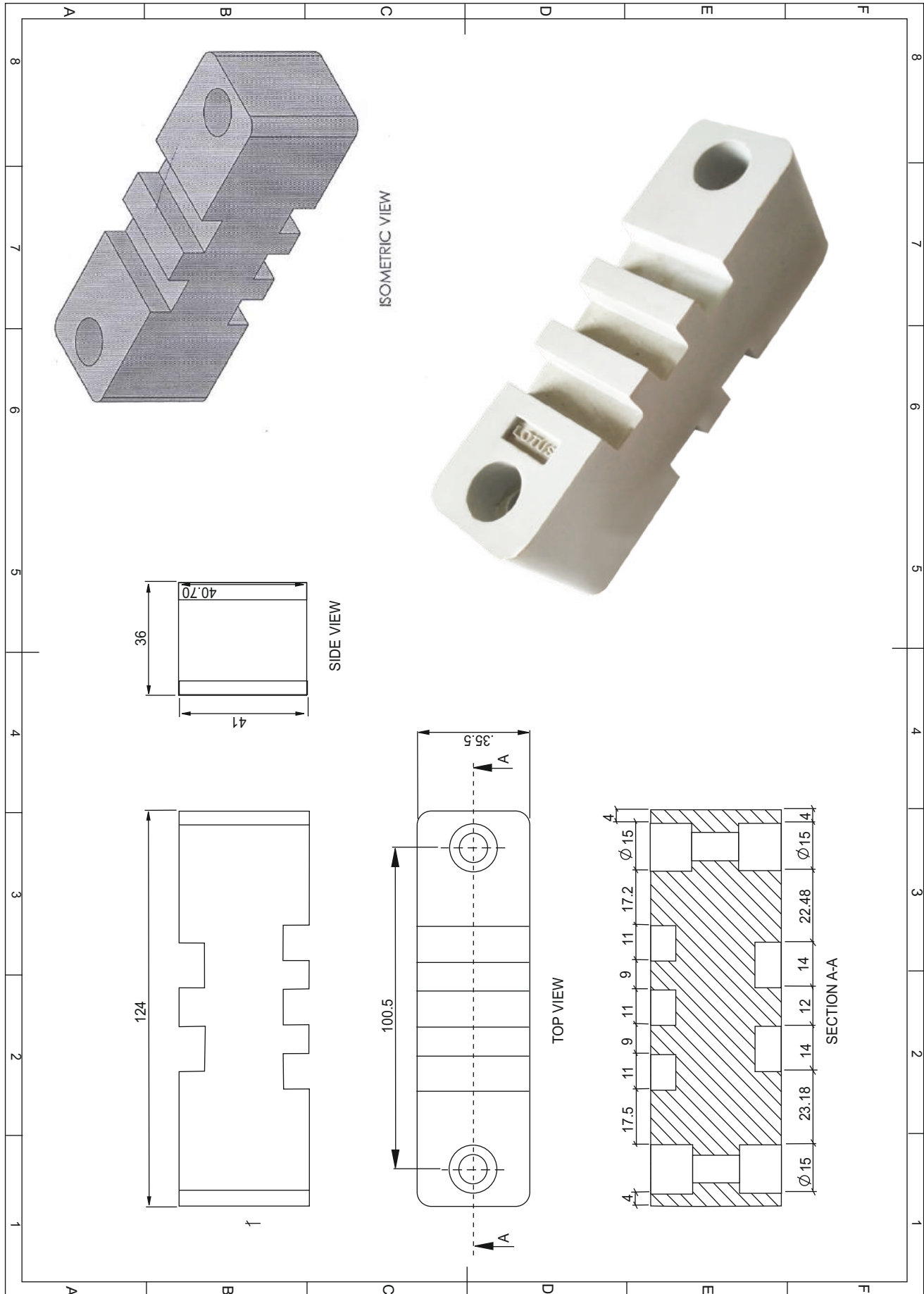


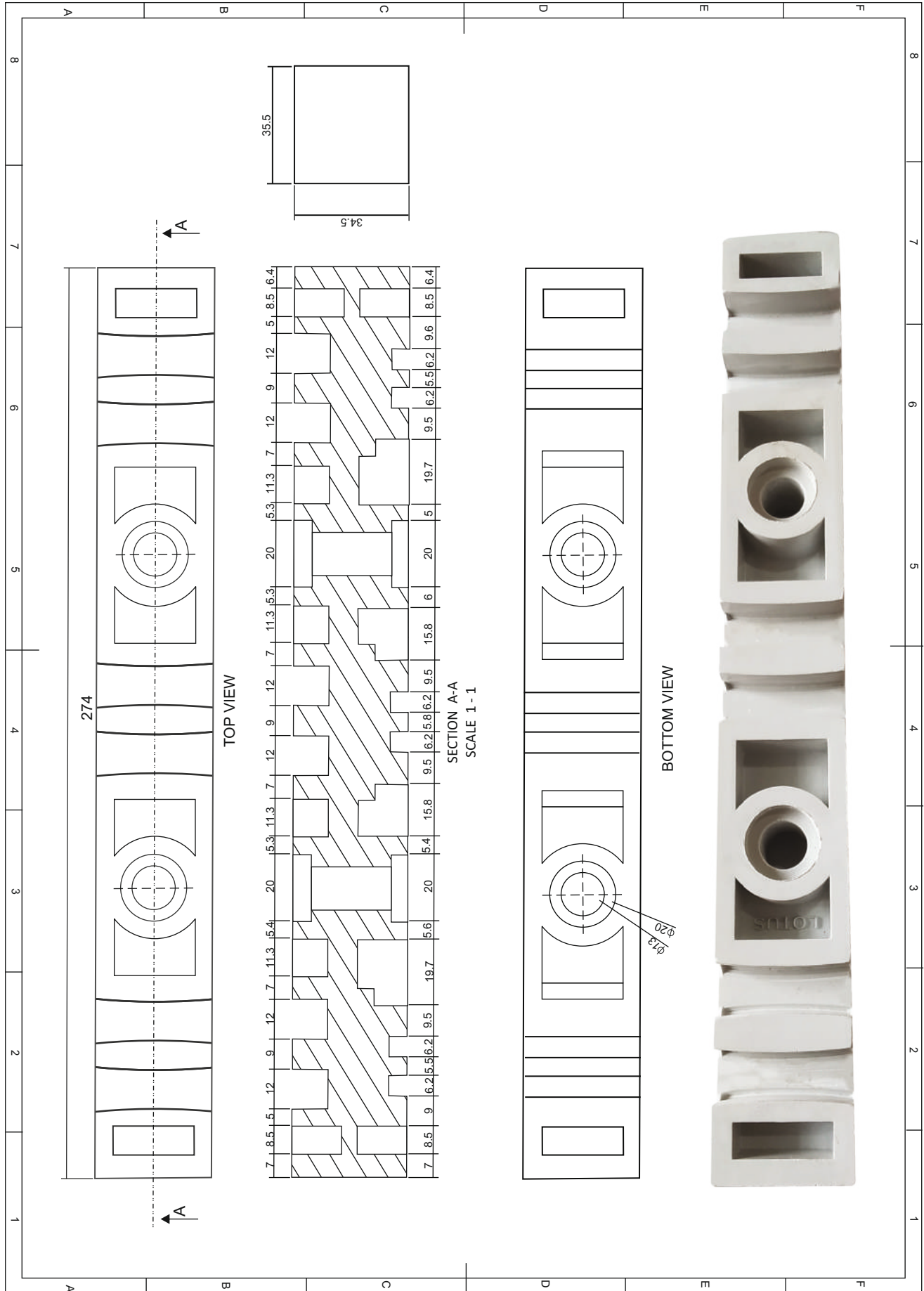
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LI 306	3	6	7.4	7	80	67	50	9	11	14
LI 310	3	10	11	10	80	67	50	9	11	14
LI 312	3	12	13.5	12	100	67	50	9	11	14

### Four Way Finger Type

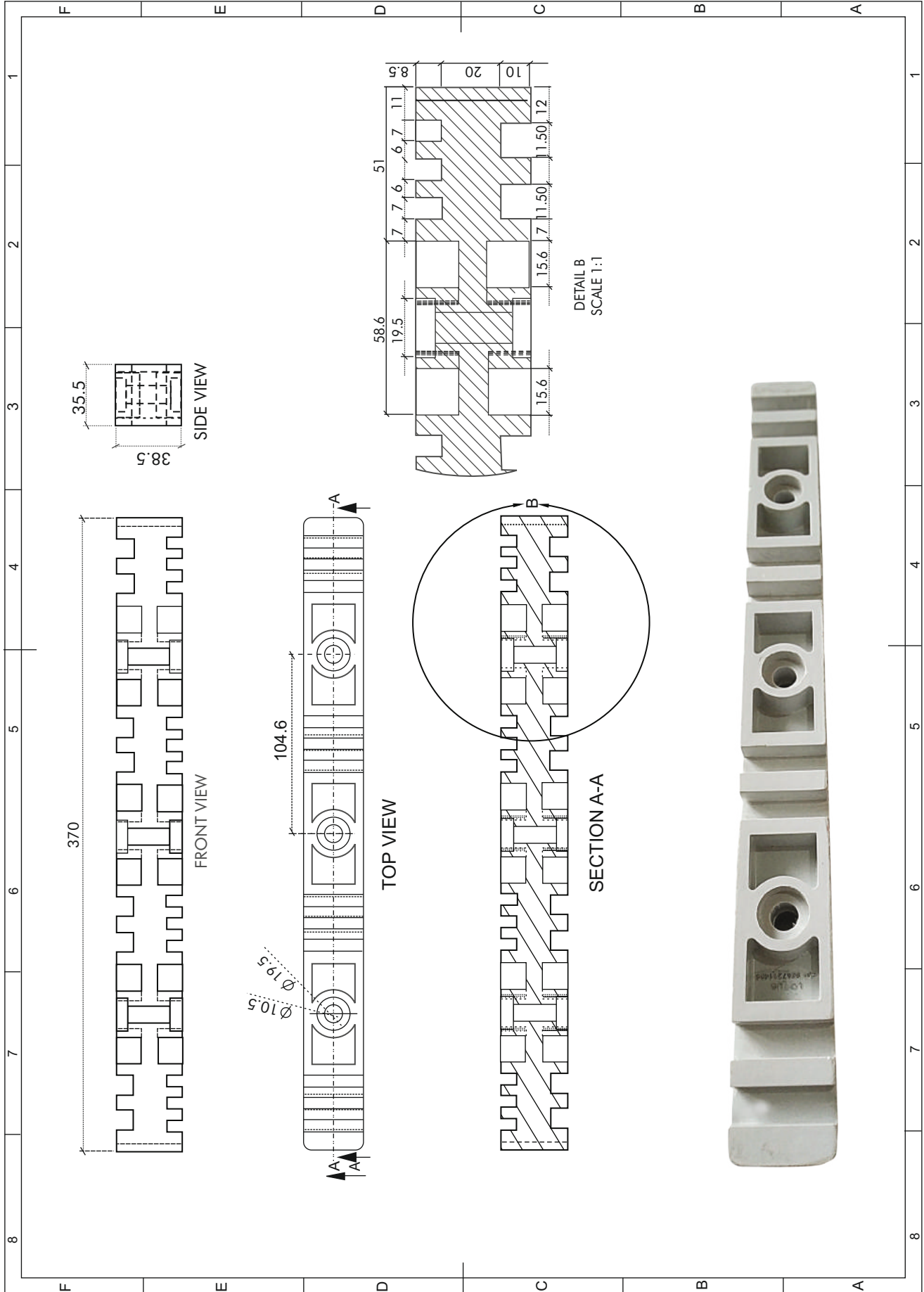


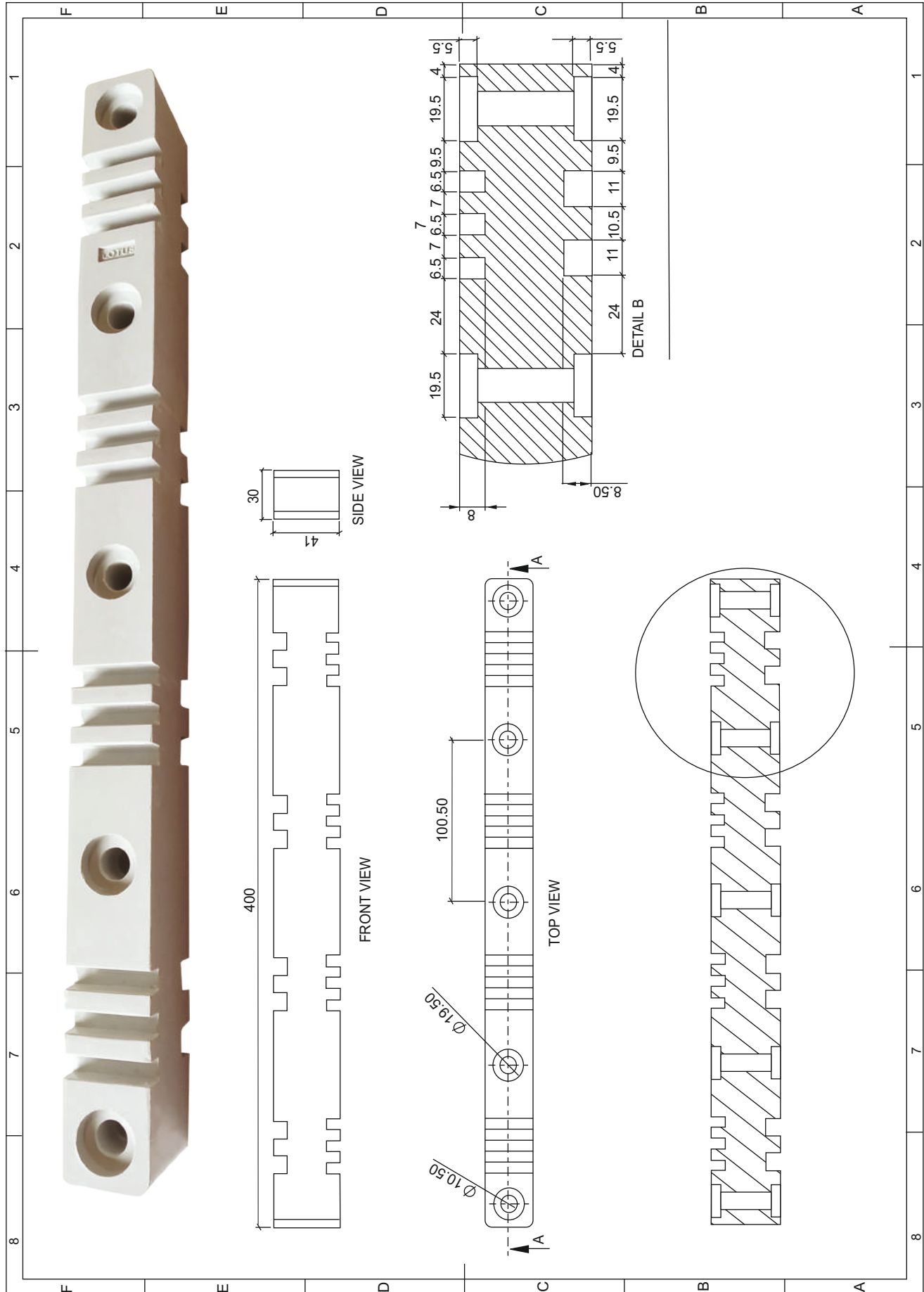
ITEM CODE	WAY	BUS BAR THK.	A	B	L	H	CD	ID	T	T1
LI 406	4	6	7.4	6	80	67	50	8.6	10	14
LI 410	4	10	11.5	14.6	118	70	75	10	12	16
LI 412	4	12	13.5	12	118	70	75	10	12	16

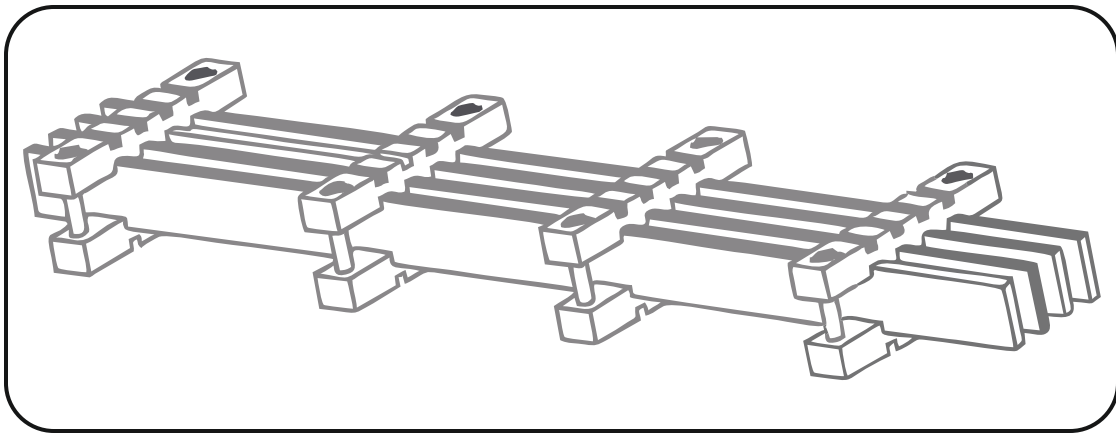
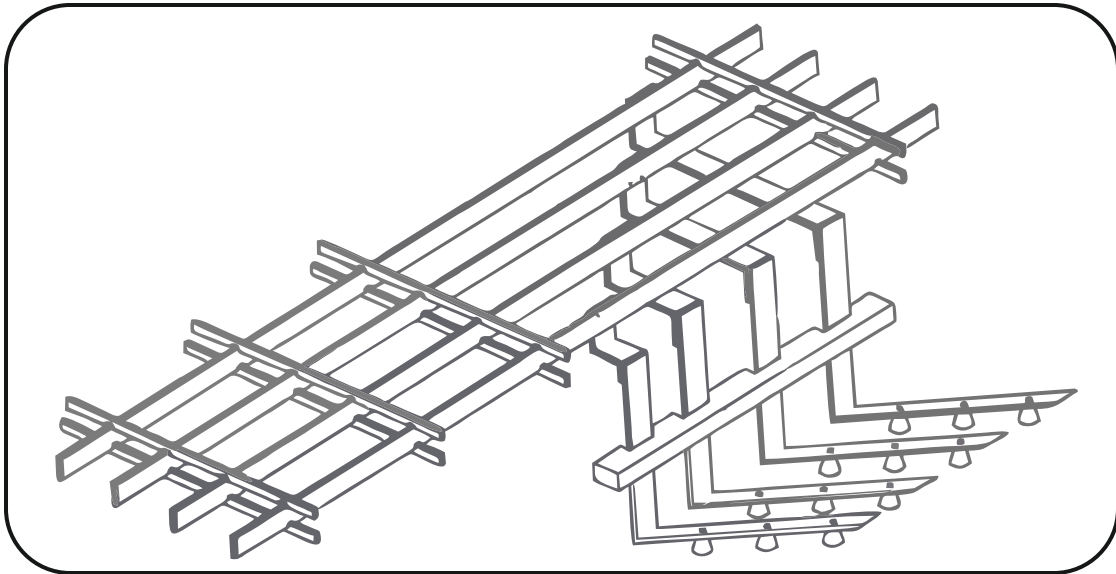
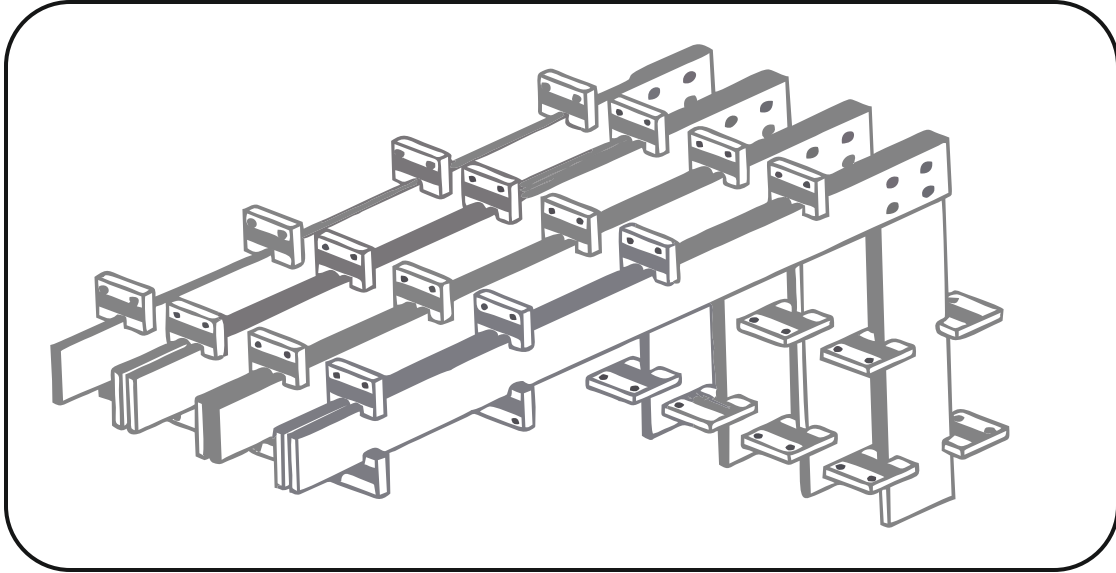






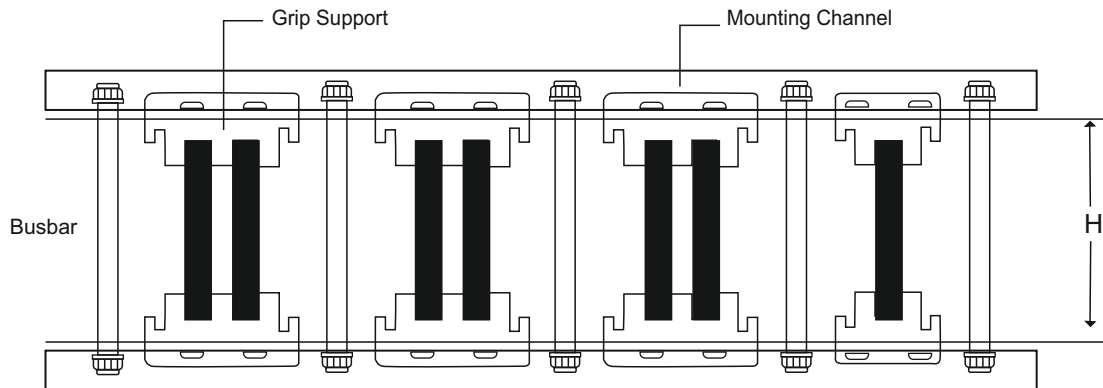




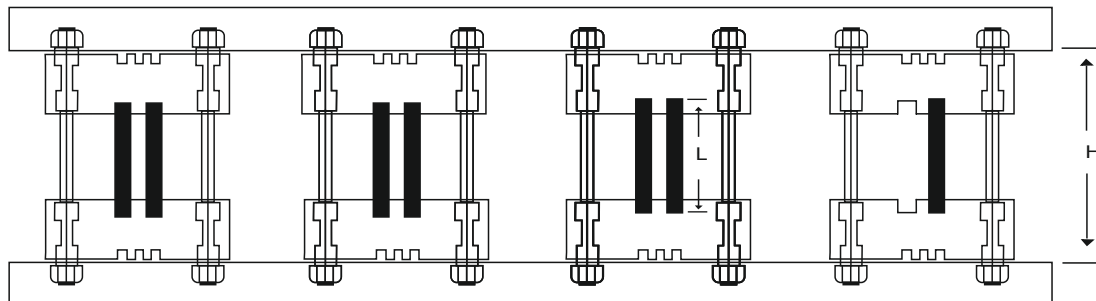
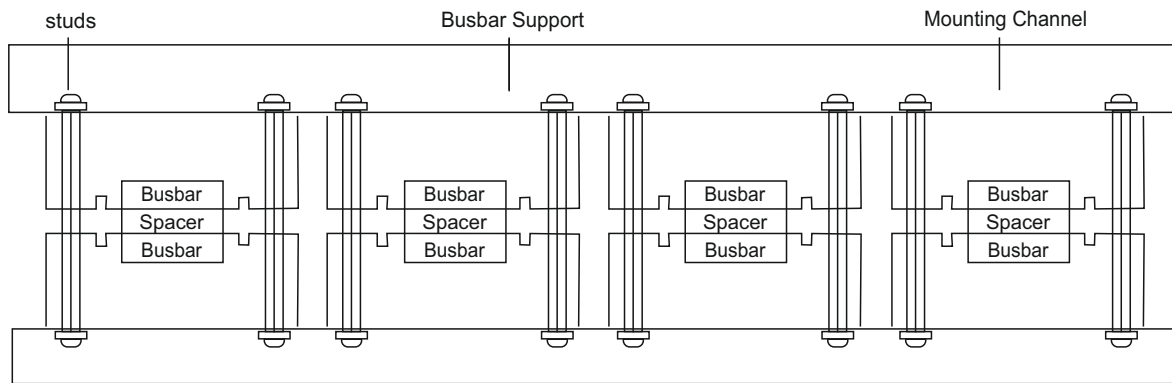


## BUSBAR SUPPORTS :

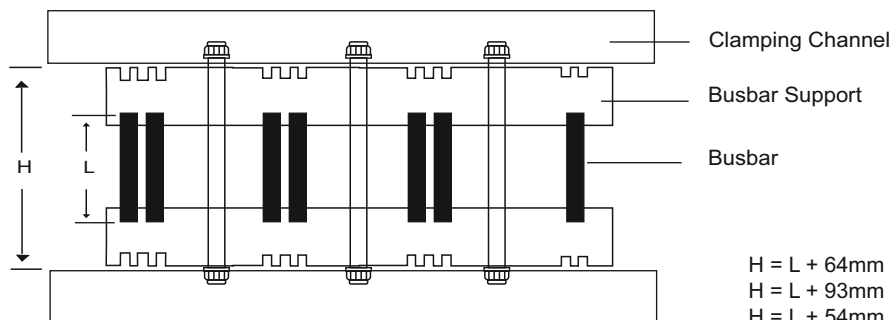
### MOUNTING DETAILS



H for GP Series L + 15  
H for GPS Series L + 15



H = L + 64mm (for 10p, 11p, 12p, 14p Series)  
H = L + 44mm (for 20p, 21p, 22p, 24p Series)



H = L + 64mm (for 30p, 31p, 32p, 42p 43p, 65p Series)  
H = L + 93mm (for 45p Series)  
H = L + 54mm (for 60p, 61p, 62p Series)

# Certificate of Registration

AWARDED TO

**LOTUS INFRAA**

*for their Premises at*

**104 SAMYAK BUILDING, SAGAR PLAZA INDUSTRIAL ESTATE, SATIVALI ROAD,  
VASAI EAST, PALGHAR, MAHARASHTRA, 401208**

Excel Management Certification certifies that the Management Systems of the above organization has been audited as per the guidelines of ISO 19011:2011 and IAF MD01 Document and found to be in accordance with the requirement of the Management System as mention below:

**ISO 9001 : 2015(QMS)**

Scope of Registration

MANUFACTURING & SUPPLY OF FIBRE GLASS PRODUCTS - SHEET MOULDING COMPOUND (SMC), DOUGH MOULDING COMPOUND (DMC) AND MOULDED PRODUCTS FOR DOMESTICS AND INTERNATIONAL MARKET.

Certificate No : EMC-QMS-123610112020

Date of Current Certificate : 20/11/2020

Date of Original Certificate : 20/11/2020

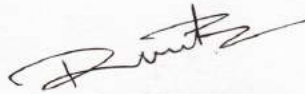
Date of Expiry of Certificate : 19/11/2023

1st Surveillance : Due on or Before : 19/11/2021

2nd Surveillance : Due on or Before : 19/11/2022



MSCB.IN.M.0213



TECHNICAL DIRECTOR



This Certificate remains the Property of Excel Management Certifications and must be returned if Certificate is Withdrawn

Add.: Swami Shivam Complex, Sinhgad Road, Vadgaon Budruk, Pune- 411 041, Maharashtra (India)

The Verification mail is : [enq@emcindia.org](mailto:enq@emcindia.org)

Or you can verify it from on website : [www.emcindia.org](http://www.emcindia.org)



**Products of LOTUS FIBRE**

**○ PROTECTION OF INSTRUMENTATION EQUIPMENT**

**BY**

- **SHADES**
- **CANOPIES**
- **BOXES (ENCLOSURES)**

**SUN SHADES & CANOPIES**



**○ CANOPIES FOR OTHER OUTDOOR EQUIPMENT**

## MOTOR PROTECTION SHELL



## ELECTRICAL CONTROL STATION IN FRP FOR OUT DOOR USE (for non Flame Proof Area)



- LOCAL CONTROL STATION
- RECEPTACLES
- CRANE PENDENT
- STREET LIGHT POLE BOX
- JUNCTION BOX







104, Smayak Building, Sagar Plaza Industrial Estate, Sativali Road,  
Vasai (E), 421208, Dist, Thane, Maharashtra.  
Mobile.: 9594411112/9833742272

Email: [lotusinfra@yahoo.com](mailto:lotusinfra@yahoo.com) • Website: [www.lotusinfra.in](http://www.lotusinfra.in)